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(2)

OIPE

RAW SEQUENCE LISTING

DATE: 10/09/2001

PATENT APPLICATION: US/09/955,732

TIME: 09:56:25

Input Set : A:\433.app.txt

Output Set: N:\CRF3\10092001\I955732.raw

4 <110> APPLICANT: Luche, Ralf M.
 5 Wei, Bo
 7 <120> TITLE OF INVENTION: DSP-15 DUAL-SPECIFICITY PHOSPHATASE
 10 <130> FILE REFERENCE: 200125.433
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/955,732
 13 <141> CURRENT FILING DATE: 2001-09-18
 15 <160> NUMBER OF SEQ ID NOS: 27
 17 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 1980
 21 <212> TYPE: DNA
 22 <213> ORGANISM: Homo sapiens
 24 <400> SEQUENCE: 1

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25 atggccctgg tcacagtgag ccgttcgccc ccggggcagcg gcgcctccac gcccggtgggg 60
26 ccctggggacc aggcgggtcca gcgaaggagt cgactccagc gaaggcagag ctttgcggtg 120
27 ctccgtgggg ctgtcctggg actgcaggat ggaggggaca atgatgatgc agcagaggcc 180
28 agttctgagc caacagagaa ggccccgagt gaggaggagc tccacgggga ccagacagac 240
29 ttcgggcaag gatcccagag tcccagaag caggaggagc agaggcagca cctgcacctc 300
30 atggtacagc tgetgaggcc gcaggatgac atccgcctgg cagcccagct ggaggcacc 360
31 cggcctcccc ggctccgcta cctgctggta gtttctacac gagaaggaga aggtctgagc 420
32 caggatgaga cggctcctct gggcgtggat ttccctgaca gcagctcccc cagctgcacc 480
33 ctgggcctgg tcttgccct ctggagtgc acccaggtgt acttagatgg agacgggggc 540
34 ttccagcgtga cgtctgggtg gcaaagccgg atcttcaagc ccatctccat ccagaccatg 600
35 tgggccacac tccaggtatt gcaccaagca tgtgaggcag ctctaggcag cggccttgta 660
36 ccgggtggca gtgccctcac ctgggccagc cactaccagg agagactgaa ctccgaacag 720
37 agctgcctca atgagtggac ggctatggcc gacctggagt ctctgcggcc tccagcgcc 780
38 gagcctggcg ggtcctcaga acaggagcag atggagcagg cgatccgtgc tgagctgtgg 840
39 aaagtgttgg atgtcagtga cctggagagt gtcacttcca aagagatccg ccaggctctg 900
40 gagctgcgcc tggggctccc cctccagcag taccgtgact tcacgacaa ccagatgctg 960
41 ctgctggtgg cacagcggga ccgagcctcc cgcattctcc cccacctcta cctgggctca 1020
42 gagtggaaac cagcaaacct ggaggagctg cagaggaaca gggtcaccca catcttgaa 1080
43 atggcccggg agattgacaa cttctaccct gagecgttca cctaccacaa tgtgcgcctc 1140
44 tgggatgagg agtcggccca gctgctgccg cactggaagg agacgcaccg cttcattgag 1200
45 gctgcaagag cacagggcac ccacgtgctg gtccactgca agatgggctg cagccgctca 1260
46 gcggccacag tgetggccta tgccatgaag cagtacgaat gcagcctgga gcaggccctg 1320
47 cgccacgtgc aggagctccg gcccatcgcc cgcccaacc ctggcttctc gcgccagctg 1380
48 cagatctacc agggcctcct gacggccagc cgcagagacc atgtctggga gcagaaagt 1440
49 ggtggggtct cccagagga gcacccagcc cctgaagtct ctacaccatt cccacctct 1500
50 ccgcagaac ctgaggggtg tgggaggag aaggtttag gcatggaaga gagccaggca 1560
51 gccccgaaag aagagcctgg gccacggcca cgtataaacc tccgaggggt catgaggtcc 1620
52 atcagtcttc tggagccctc cttggagctg gagagcacct cagagaccag tgacatgcca 1680
53 gaggtcttct cttcccacga gtcttcacat gaagagcctc tgcagccctt cccacagctt 1740
54 gcaaggacca agggaggcca gcaggtggac agggggcctc agcctgccct gaagtccgc 1800
55 cagtcaagtg ttacctcca gggcagtgcc gtggtggcca accggaccca ggccttccag 1860
56 gagcaggagc aggggcagg gcaggggcag ggagagccct gcatttctc tacgcccagg 1920
57 ttccggaagg tggtagagca ggccagcgtg catgacagtg gagaggagg cgaggcctga 1980
60 <210> SEQ ID NO: 2

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ENTERED

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PATENT APPLICATION: US/09/955,732

DATE: 10/09/2001

TIME: 09:56:25

Input Set : A:\433.app.txt

Output Set: N:\CRF3\10092001\I955732.raw

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61 <211> LENGTH: 659
62 <212> TYPE: PRT
63 <213> ORGANISM: Homo sapiens
65 <400> SEQUENCE: 2
66 Met Ala Leu Val Thr Val Ser Arg Ser Pro Pro Gly Ser Gly Ala Ser
67 1 5 10 15
68 Thr Pro Val Gly Pro Trp Asp Gln Ala Val Gln Arg Arg Ser Arg Leu
69 20 25 30
70 Gln Arg Arg Gln Ser Phe Ala Val Leu Arg Gly Ala Val Leu Gly Leu
71 35 40 45
72 Gln Asp Gly Gly Asp Asn Asp Asp Ala Ala Glu Ala Ser Ser Glu Pro
73 50 55 60
74 Thr Glu Lys Ala Pro Ser Glu Glu Glu Leu His Gly Asp Gln Thr Asp
75 65 70 75 80
76 Phe Gly Gln Gly Ser Gln Ser Pro Gln Lys Gln Glu Glu Gln Arg Gln
77 85 90 95
78 His Leu His Leu Met Val Gln Leu Leu Arg Pro Gln Asp Asp Ile Arg
79 100 105 110
80 Leu Ala Ala Gln Leu Glu Ala Pro Arg Pro Pro Arg Leu Arg Tyr Leu
81 115 120 125
82 Leu Val Val Ser Thr Arg Glu Gly Glu Gly Leu Ser Gln Asp Glu Thr
83 130 135 140
84 Val Leu Leu Gly Val Asp Phe Pro Asp Ser Ser Ser Pro Ser Cys Thr
85 145 150 155 160
86 Leu Gly Leu Val Leu Pro Leu Trp Ser Asp Thr Gln Val Tyr Leu Asp
87 165 170 175
88 Gly Asp Gly Gly Phe Ser Val Thr Ser Gly Gly Gln Ser Arg Ile Phe
89 180 185 190
90 Lys Pro Ile Ser Ile Gln Thr Met Trp Ala Thr Leu Gln Val Leu His
91 195 200 205
92 Gln Ala Cys Glu Ala Ala Leu Gly Ser Gly Leu Val Pro Gly Gly Ser
93 210 215 220
94 Ala Leu Thr Trp Ala Ser His Tyr Gln Glu Arg Leu Asn Ser Glu Gln
95 225 230 235 240
96 Ser Cys Leu Asn Glu Trp Thr Ala Met Ala Asp Leu Glu Ser Leu Arg
97 245 250 255
98 Pro Pro Ser Ala Glu Pro Gly Gly Ser Ser Glu Gln Glu Gln Met Glu
99 260 265 270
100 Gln Ala Ile Arg Ala Glu Leu Trp Lys Val Leu Asp Val Ser Asp Leu
101 275 280 285
102 Glu Ser Val Thr Ser Lys Glu Ile Arg Gln Ala Leu Glu Leu Arg Leu
103 290 295 300
104 Gly Leu Pro Leu Gln Gln Tyr Arg Asp Phe Ile Asp Asn Gln Met Leu
105 305 310 315 320
106 Leu Leu Val Ala Gln Arg Asp Arg Ala Ser Arg Ile Phe Pro His Leu
107 325 330 335
108 Tyr Leu Gly Ser Glu Trp Asn Ala Ala Asn Leu Glu Glu Leu Gln Arg
109 340 345 350
110 Asn Arg Val Thr His Ile Leu Asn Met Ala Arg Glu Ile Asp Asn Phe

```

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```

111          355          360          365
112 Tyr  Pro  Glu  Arg  Phe  Thr  Tyr  His  Asn  Val  Arg  Leu  Trp  Asp  Glu  Glu
113          370          375          380
114 Ser  Ala  Gln  Leu  Leu  Pro  His  Trp  Lys  Glu  Thr  His  Arg  Phe  Ile  Glu
115 385          390          395          400
116 Ala  Ala  Arg  Ala  Gln  Gly  Thr  His  Val  Leu  Val  His  Cys  Lys  Met  Gly
117          405          410          415
118 Val  Ser  Arg  Ser  Ala  Ala  Thr  Val  Leu  Ala  Tyr  Ala  Met  Lys  Gln  Tyr
119          420          425          430
120 Glu  Cys  Ser  Leu  Glu  Gln  Ala  Leu  Arg  His  Val  Gln  Glu  Leu  Arg  Pro
121          435          440          445
122 Ile  Ala  Arg  Pro  Asn  Pro  Gly  Phe  Leu  Arg  Gln  Leu  Gln  Ile  Tyr  Gln
123          450          455          460
124 Gly  Ile  Leu  Thr  Ala  Ser  Arg  Gln  Ser  His  Val  Trp  Glu  Gln  Lys  Val
125 465          470          475          480
126 Gly  Gly  Val  Ser  Pro  Glu  Glu  His  Pro  Ala  Pro  Glu  Val  Ser  Thr  Pro
127          485          490          495
128 Phe  Pro  Pro  Leu  Pro  Pro  Glu  Pro  Glu  Gly  Gly  Gly  Glu  Glu  Lys  Val
129          500          505          510
130 Val  Gly  Met  Glu  Glu  Ser  Gln  Ala  Ala  Pro  Lys  Glu  Glu  Pro  Gly  Pro
131          515          520          525
132 Arg  Pro  Arg  Ile  Asn  Leu  Arg  Gly  Val  Met  Arg  Ser  Ile  Ser  Leu  Leu
133          530          535          540
134 Glu  Pro  Ser  Leu  Glu  Leu  Glu  Ser  Thr  Ser  Glu  Thr  Ser  Asp  Met  Pro
135 545          550          555          560
136 Glu  Val  Phe  Ser  Ser  His  Glu  Ser  Ser  His  Glu  Glu  Pro  Leu  Gln  Pro
137          565          570          575
138 Phe  Pro  Gln  Leu  Ala  Arg  Thr  Lys  Gly  Gln  Gln  Val  Asp  Arg  Gly
139          580          585          590
140 Pro  Gln  Pro  Ala  Leu  Lys  Ser  Arg  Gln  Ser  Val  Val  Thr  Leu  Gln  Gly
141          595          600          605
142 Ser  Ala  Val  Val  Ala  Asn  Arg  Thr  Gln  Ala  Phe  Gln  Glu  Gln  Glu  Gln
143          610          615          620
144 Gly  Gln  Gly  Gln  Gly  Gln  Gly  Glu  Pro  Cys  Ile  Ser  Ser  Thr  Pro  Arg
145 625          630          635          640
146 Phe  Arg  Lys  Val  Val  Arg  Gln  Ala  Ser  Val  His  Asp  Ser  Gly  Glu  Glu
147          645          650          655
148 Gly  Glu  Ala
152 <210> SEQ ID NO: 3
153 <211> LENGTH: 156
154 <212> TYPE: PRT
155 <213> ORGANISM: Homo sapiens
157 <400> SEQUENCE: 3
158 Asp  Gly  Ser  Pro  Leu  Ser  Asn  Ser  Gln  Pro  Ser  Phe  Pro  Val  Glu  Ile
159 1          5          10          15
160 Leu  Pro  Phe  Leu  Tyr  Leu  Gly  Cys  Ala  Lys  Asp  Ser  Thr  Asn  Leu  Asp
161          20          25          30
162 Val  Leu  Glu  Glu  Phe  Gly  Ile  Lys  Tyr  Ile  Leu  Asn  Val  Thr  Pro  Asn
163          35          40          45

```

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Input Set : A:\433.app.txt

Output Set: N:\CRF3\10092001\I955732.raw

```

164 Leu Pro Asn Leu Phe Glu Asn Ala Gly Glu Phe Lys Tyr Lys Gln Ile
165      50              55              60
166 Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu
167 65              70              75              80
168 Ala Ile Ser Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu
169              85              90              95
170 Val His Cys Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala
171              100              105              110
172 Tyr Leu Met Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile
173              115              120              125
174 Val Lys Met Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly
175              130              135              140
176 Gln Leu Leu Asp Phe Glu Arg Thr Leu Gly Leu Ser
177 145              150              155

```

180 <210> SEQ ID NO: 4

181 <211> LENGTH: 156

182 <212> TYPE: PRT

183 <213> ORGANISM: Homo sapiens

185 <400> SEQUENCE: 4

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186 Asp Gly Ser Pro Val Pro Ser Ser Gln Pro Ala Phe Pro Val Gln Ile
187 1      5              10              15
188 Leu Pro Tyr Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp
189              20              25              30
190 Val Leu Gly Lys Tyr Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn
191              35              40              45
192 Leu Pro Asn Ala Phe Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile
193      50              55              60
194 Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu
195 65              70              75              80
196 Ala Ile Ser Phe Ile Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu
197              85              90              95
198 Val His Cys Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala
199              100              105              110
200 Tyr Leu Met Gln Lys Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe
201              115              120              125
202 Val Lys Arg Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly
203      130              135              140
204 Gln Leu Leu Asp Phe Glu Arg Thr Leu Gly Leu Ser
205 145              150              155

```

208 <210> SEQ ID NO: 5

209 <211> LENGTH: 156

210 <212> TYPE: PRT

211 <213> ORGANISM: Homo sapiens

213 <400> SEQUENCE: 5

```

214 Ala Thr Pro Pro Pro Val Gly Leu Arg Ala Ser Phe Pro Val Gln Ile
215 1      5              10              15
216 Leu Pro Asn Leu Tyr Leu Gly Ser Ala Arg Asp Ser Ala Asn Leu Glu
217              20              25              30
218 Ser Leu Ala Lys Leu Gly Ile Arg Tyr Ile Leu Asn Val Thr Pro Asn

```

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Input Set : A:\433.app.txt

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```

219          35          40          45
220 Leu Pro Asn Phe Phe Glu Lys Asn Gly Asp Phe His Tyr Lys Gln Ile
221          50          55          60
222 Pro Ile Ser Asp His Trp Ser Gln Asn Leu Ser Arg Phe Phe Pro Glu
223 65          70          75          80
224 Ala Ile Glu Phe Ile Asp Glu Ala Leu Ser Gln Asn Cys Gly Val Leu
225          85          90          95
226 Val His Cys Leu Ala Gly Val Ser Arg Ser Val Thr Val Thr Val Ala
227          100          105          110
228 Tyr Leu Met Gln Lys Leu His Leu Ser Leu Asn Asp Ala Tyr Asp Leu
229          115          120          125
230 Val Lys Arg Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly
231          130          135          140
232 Gln Leu Leu Asp Phe Glu Arg Ser Leu Arg Leu Glu
233 145          150          155
236 <210> SEQ ID NO: 6
237 <211> LENGTH: 155
238 <212> TYPE: PRT
239 <213> ORGANISM: Homo sapiens
241 <400> SEQUENCE: 6
242 Leu Ser Gln Pro Cys Leu Pro Val Pro Ser Val Gly Leu Thr Arg Ile
243 1          5          10          15
244 Leu Pro His Leu Tyr Leu Gly Ser Gln Lys Asp Val Leu Asn Lys Asp
245          20          25          30
246 Leu Met Thr Gln Asn Gly Ile Ser Tyr Val Leu Asn Ala Ser Asn Ser
247          35          40          45
248 Cys Pro Lys Pro Asp Phe Ile Cys Glu Ser Arg Phe Met Arg Val Pro
249          50          55          60
250 Ile Asn Asp Asn Tyr Cys Glu Lys Leu Leu Pro Trp Leu Asp Lys Ser
251 65          70          75          80
252 Ile Glu Phe Ile Asp Lys Ala Lys Leu Ser Ser Cys Gln Val Ile Val
253          85          90          95
254 His Cys Leu Ala Gly Ile Ser Arg Ser Ala Thr Ile Ala Ile Ala Tyr
255          100          105          110
256 Ile Met Lys Thr Met Gly Met Ser Ser Asp Asp Ala Tyr Arg Phe Val
257          115          120          125
258 Lys Asp Arg Arg Pro Ser Ile Ser Pro Asn Phe Asn Phe Leu Gly Gln
259          130          135          140
260 Leu Leu Glu Tyr Glu Arg Thr Leu Lys Leu Leu
261 145          150          155
264 <210> SEQ ID NO: 7
265 <211> LENGTH: 154
266 <212> TYPE: PRT
267 <213> ORGANISM: Homo sapiens
269 <400> SEQUENCE: 7
270 Ser Asp Pro Arg Val Pro Ile Tyr Asp Gln Gly Gly Pro Val Glu Ile
271 1          5          10          15
272 Leu Pro Tyr Leu Tyr Leu Gly Ser Cys Asn His Ser Ser Asp Leu Gln
273          20          25          30

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/955,732

DATE: 10/09/2001

TIME: 09:56:26

Input Set : A:\433.app.txt

Output Set: N:\CRF3\10092001\I955732.raw

L:12 M:270 C: Current Application Number differs, Wrong Format